infarction, stroke and angina were estimated to be CAD20,372, CAD36,356 and CAD3,480, respectively. Costs in subsequent years were CAD1304, CAD9587 and CAD1623, respectively. Congestive heart failure costs were estimated to be CAD2232. First year costs of end-stage renal disease (ESRD) ranged between CAD53,046 and CAD 95,550 depending on the type of dialysis. In subsequent years, ESRD costs were in the range CAD31,356 to 147,225. Major costs associated with neuropathy and foot ulcer complications included CAD1,140 for uninfected foot ulcer, CAD2,387 for infected ulcer, CAD8,529 for treatment of gangrene and CAD26,875 for amputation. **CONCLUSIONS:** Cost data are available in Canada, but no published data were identified for Australia. These data are of central importance to modeling groups to allow the simulation of the long-term costs associated with diabetes and its complications, as well as the cost-effectiveness of treatments for this disease.

PDB20

COMPARISON OF THE COST TO REACH A1C TARGETS IN PATIENTS WITH TYPE-2 DIABETES MELLITUS ON ORAL ANTIDIABETIC AGENTS AND EITHER BIPHASIC INSULIN ASPART 70/30 OR INSULIN GLARGINE

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OBJECTIVE: To evaluate the annual direct pharmacy costs-per-patient for reaching the goal of an A1C of < 7.0% and ≤6.5% among patients with type-2 diabetes using oral antidiabetic agents (OADs) and either biphasic insulin aspart 70/30 (BIAsp 70/30) or glargine. **METHODS:** Data from a recent clinical study (INITIATE) demonstrated that over a 28-week period, significantly more insulin-naïve, type-2 subjects previously treated with OADs reached the American Diabetes Association target of A1C <7.0% with twice-daily BIAsp 70/30 + metformin (met) ± thiazolidinedione (TZD) compared to bedtime insulin glargine + met ±TZD (66% vs. 40%; p = 0.0002). Likewise, a statistically significant difference favoring BIAsp 70/30 was observed when assessing the two cohorts against the International Diabetes Federation target of A1C ≤6.5% (42% vs. 28%; p = 0.0356). The annual direct pharmacy costs for the insulins, metformin, and TZD (pioglitazone) were calculated using published AWP cost data within the US. **RESULTS:** Cost calculations were based on end-of-study mean daily medication doses of 0.82 IU/kg BIAsp 70/30 (mean weight: 95.7 kg), 0.55 IU/kg glargine (mean weight: 93.8 kg), 1500 mg metformin, and 30 mg pioglitazone for subjects treated with TZD (32% in each arm). The mean costs-per-patient reaching A1C values of <7.0% were $5295 with BIAsp 70/30 and $6850 with glargine, and $8321 and $9786, respectively, for subjects reaching ≤6.5%. **CONCLUSION:** The mean annual direct pharmacy costs-per-patient were considerably lower using BIAsp 70/30 compared to glargine, indicating that BIAsp 70/30 is a better investment of health care dollars when aiming to bring type-2 patients to better control at clinically endorsed A1C targets.

PDB21

HEALTH CARE RESOURCE UTILIZATION AND COST IN TYPE-2 DIABETES PATIENTS RECEIVING COMBINATION SULFONYLUREA (SU) AND ROSIGLITAZONE (RSG): THE RESULT TRIAL

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The prevalence and cost of type-2 diabetes is significant in elderly patients. Improved glycemic control may be associated with better health outcomes and lower cost. **OBJECTIVE:** To analyze health care resource use and estimate cost of care over a two-year period in elderly patients (>60 years) with type-2 diabetes receiving treatment with rosiglitazone (RSG) plus sub-maximal sulfonylurea (SU) combination therapy (n = 115) or progressive uptitration of the SU, glipizide (GLIP), (n = 110) in the Rosiglitazone Early vs. Sulfonylurea Titration (RESULT) clinical trial. **METHODS:** Treatment was individualized, targeting ADA defined goals, as appropriate, with uptitration required for FPG >180 mg/dL to a max of glipizide 20 mg bid and RSG 4 mg bid. Patient self-reported hospitalizations, emergency room (ER) visits, and physician visits were prospectively collected for the duration of the trial. Health care utilization rates were reported and analyzed as rates per 1000 patient-days using Poisson regression models. National average unit costs were applied to estimate total direct medical cost, where appropriate costs were adjusted for the duration of therapy and expressed as cost per patient per month (PPPM). **RESULTS:** By the end of two years, disease progression (time to reach confirmed FPG ≥ d 180 mg/dl) was observed in only two patients (1.7%) randomized to RSG + GLIP, compared to 27 patients (24.3%) taking GLIP alone (p < 0.0001). In comparison with patients in the GLIP group, patients in the RSG + GLIP group had significantly fewer ER visits (p = 0.0006) and hospitalizations (p = 0.0263). There were no statistically significant differences in unscheduled physician office visits between the two treatment groups. Average PPPM costs were significantly lower for the RSG + GLIP group ($480) compared to the GLIP monotherapy group ($644) (p < 0.05). **CONCLUSION:** The addition of RSG to SU therapy was associated with a decreased use of medical resources, in particular hospitalizations and ER visits, and resulted in significant cost savings.

PDB22

LONG-TERM COST-EFFECTIVENESS OF INSULIN ASPART VERSUS SOLUBLE HUMAN INSULIN IN PATIENTS WITH TYPE 1 DIABETES IN THE UNITED KINGDOM

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OBJECTIVES: A clinical trial showed that intensive therapy with the rapid-acting insulin analogue insulin aspart (IAsp) was superior to soluble human insulin (SHI), both combined with NPH insulin as basal insulin, with respect to improving glycaemic control (baseline-adjusted difference in HbA_{1c} of –0.12%, p < 0.02). We investigated how this small but significant difference, together with other clinical parameters, would affect the long-term complications associated with diabetes, health care costs and cost-effectiveness in the UK setting. **METHODS:** The published and validated CORE Diabetes Model was used to predict long-term complications, improvements in life years gained (LYG), quality-adjusted life years (QALYs) gained, long-term costs and cost-effectiveness for IAsp versus SHI. Standard Markov/Monte Carlo simulation techniques were used to describe the incidence and progression of complications. Probabilities of complications and HbA_{1c}-dependent adjustments were derived from the DCCT, other major clinical trials and population-based studies. Clinical inputs were taken from a six-month multinational, open-label, parallel-group trial in type-1 diabetes patients. Costs of treating complications in the UK (inflated to 2004 costs) and utility values were obtained from published